

## **CLAIMS**

### **What Is Claim d Is:**

- 1 1. A control system for a toilet having a toilet tank and a toilet bowl,  
2 comprising:  
3 a water measuring and flow control system having a housing held in the  
4 toilet tank;  
5 a plurality of water level sensors and overflow sensors mounted in the  
6 toilet tank and the toilet bowl;  
7 an operating system held in the housing; and  
8 a flow sensor held in the housing and operatively connected to the  
9 operating system, to an inlet control valve and to the plurality of water level  
10 sensors and the overflow sensors to measure and control water flow to and  
11 from the toilet.
- 1 2. The control system of claim 1 wherein at least one of the water level  
2 sensors is held in the toilet bowl to detect and prevent overflows from the toilet  
3 bowl.
- 1 3. The control system of claim 2, further including an outlet flow sensor  
2 mounted in an exit housing held in the toilet tank and having an outlet control  
3 valve therein; the outlet flow sensor and the outlet control valve being  
4 operatively connected to the operating system.
- 1 4. The control system of claim 3, further including a microprocessor and a  
2 power supply in the operating system.
- 1 5. The control system of claim 4 wherein at least two of the water level  
2 sensors are held in the toilet tank to measure high and low levels of water in  
3 the toilet tank.

1 6. The control system of claim 5, further including charging means  
2 operated by the flow sensor and the outlet flow sensor for recharging the power  
3 supply.

1 7. The control system of claim 1 wherein the operating system includes a  
2 microprocessor, a power supply, an inlet flow sensor and an outlet flow sensor.

1 8. The control system of claim 7, further including charging generators  
2 operated by the inlet flow sensor and the outlet flow sensor for recharging the  
3 power supply.

1 9. The control system of claim 8 wherein at least one of the water level  
2 sensors is held in the toilet bowl to detect and prevent overflows from the toilet  
3 bowl and the outlet flow sensor is mounted in an exit housing held in the toilet  
4 tank and having an outlet control valve therein; the outlet flow sensor and the  
5 outlet control valve are operatively connected to the operating system.

1 10. The control system of claim 10 wherein at least two of the water level  
2 sensors are held in the toilet tank to measure high and low levels of water in  
3 the toilet tank and the exit housing is sized and dimensioned to only allow a  
4 predetermined amount of water to exit from the toilet tank when the outlet  
5 valve is opened.

1 11. The control system of claim 1, further including means in the toilet tank  
2 to control the amount of water exiting from the toilet tank.

1 12. The control system of claim 11 wherein the means in the toilet tank to  
2 control the amount of water exiting from the toilet tank is an exit housing  
3 sized and dimensioned to only allow a predetermined amount of water to exit  
4 from the toilet tank when the outlet valve is opened.

1 13. The control system of claim 11 wherein the means in the toilet tank to  
2 control the amount of water exiting from the toilet tank is a separate reservoir  
3 movably held in the toilet tank and operable when the toilet is flushed.

1 14. A water measuring and flow control system for a toilet having a tank and  
2 a bowl, comprising:

3 a plurality of water level leak detection and prevention sensors held in  
4 the toilet tank;

5 a plurality of overflow detection and prevention sensors held in the toilet  
6 tank and the toilet bowl;

7 an inlet flow sensor operatively connected to an inlet control valve and to  
8 the plurality of water level leak detection and prevention sensors to measure  
9 and control water flow into the toilet;

10 an operating system held in the housing; and

11 means held in the toilet tank to control the amount of water exiting from  
12 the toilet tank when it is flushed.

1 15. The control system of claim 11 wherein the means in the toilet tank to  
2 control the amount of water exiting from the toilet tank is a separate reservoir  
3 movably held in the toilet tank for receiving a predetermined amount of water  
4 and dispensing the predetermined amount of water upon flushing of the toilet.

1 16. The control system of claim 11 wherein at least one of the plurality of  
2 water level leak detection and prevention sensors is held in the toilet tank to  
3 control the amount of water received by the reservoir.

1 17. The control system of claim 11 wherein the means in the toilet tank to  
2 control the amount of water exiting from the toilet tank is an exit housing held  
3 in the toilet tank and sized and dimensioned to only allow a predetermined  
4 amount of water to exit from the toilet tank when the outlet valve is opened.

1 18. The control system of claim 17 wherein the operating system includes a  
2 microprocessor, a power supply, an inlet flow sensor and an outlet flow sensor;  
3 the outlet flow sensor is held in the exit housing after an outlet control valve;  
4 and the inlet flow sensor and the outlet flow sensor are connected to charging  
5 generators for recharging the power supply.

1 19. The control system of claim 14, further including an outlet flow sensor  
2 operatively connected to an outlet control valve and to the plurality of water  
3 level leak detection and prevention sensors to measure and control water flow  
4 out of the toilet, and wherein at least one of the water level sensors is held in  
5 the toilet bowl to detect and prevent overflows from the toilet bowl; the outlet  
6 flow sensor being mounted in an exit housing held in the toilet tank and sized  
7 and dimensioned to only allow a predetermined amount of water to exit the  
8 toilet tank upon flushing of the toilet.

1 20. A water measuring and flow control system for a toilet having a tank and  
2 a bowl, comprising:

3 a plurality of water level leak detection and prevention sensors held in  
4 the toilet tank;

5 a plurality of overflow detection and prevention sensors held in the toilet  
6 tank and the toilet bowl;

7 an inlet flow sensor operatively connected to an inlet control valve;

8 an outlet flow sensor operatively connected to an outlet control valve;

9 an operating system held in the housing and connected to a power  
10 supply; the operating system including a microprocessor and operatively  
11 connected to the inlet flow sensor and the outlet flow sensor;

12 charging generators operated by the inlet flow sensor and the outlet flow  
13 sensor for recharging the power supply and

14 a mechanical element held in the toilet tank to control the amount of  
15 water exiting from the toilet tank when it is flushed.